ACCIDENT ANALYSIS & PREVENTION

List of Contents and Author Index Volume 25, 1993



PERGAMON PRESS
NEW YORK · OXFORD · SEOUL · TOKYO

ACCIDENT ANALYSIS & PREVENTION

EDITOR-IN-CHIEF: FRANK A. HAIGHT

Institute of Transportation Studies, University of California, Irvine, CA 92717, U.S.A.

ASSOCIATE EDITORS

LINDSAY I. GRIFFIN, III

Safety Division, TTI, The Texas A & M University, College Station, TX 77843-3135, U.S.A.

EZRA HAUER

Department of Civil Engineering, University of Toronto, Toronto, Ontario, Canada M5S 1A8

HANS C. JOKSCH

University of Michigan, Transportation Research Institute, Ann Arbor, MI 48109-2150, U.S.A.

HERBERT MOSKOWITZ

4138 Royal Crest Place, Encino, CA 91436, U.S.A.

KÅRE RUMAR

Road Safety, National Swedish Road Administration, S-781 87 Borlänge, Sweden

DAVID C. VIANO

Biomedical Science Department, General Motors Research Laboratories, Warren, MI 48090-9058, U.S.A.

RECENT PUBLICATIONS EDITOR: MARY L. CHIPMAN

EDITORIAL ADVISORY BOARD

DAVID ANDREASSEN, Nunawading, Vic., Australia KENNETH H. BECK, College Park, MD, U.S.A.

IVAN D. BROWN, Cambridge, U.K.

Том Dwyer, São Paulo, Brazil

RUNE ELVIK, Oslo, Norway

ANDREW EVANS, London, U.K.

LEONARD EVANS, Warren, MI, U.S.A.

BARUCH FISCHHOFF, Pittsburgh, PA, U.S.A.

JOHN D. GRAHAM, Boston, MA, U.S.A.

JAMES HEDLUND, Washington, DC, U.S.A.

J. MICHAEL HENDERSON, Church Point, N.S.W., Australia

ROBIN P. HERTZ, Arlington, VA, U.S.A.

MARY K. JANKE, Sacramento, CA, U.S.A.

BRIAN JONAH, Ottawa, Canada

NEILS O. JØRGENSON, Lyngby, Denmark

SYLVAIN LASSARRE, Arcueil, France

TED MILLER, Landover, MD, U.S.A.

DINESH MOHAN, New Delhi, India

CARL NASH, Washington, DC, U.S.A.

ALAN NICHOLSON, Christchurch, New Zealand

SUSAN C. PARTYKA, Washington, DC, U.S.A.

H. LAURENCE Ross, Albuquerque, NM, U.S.A.

David Shinar, Beer Sheva, Israel

MICHAEL SIVAK, Ann Arbor, MI, U.S.A.

HEIKKI SUMMALA, Helsinki, Finland

ALEXANDER C. WAGENAAR, Minneapolis, MN,

JULIAN A. WALLER, Burlington, VT, U.S.A.

REG A. WARREN, Ottawa, Canada

GERALD J. S. WILDE, Kingston, Canada

GAREN J. WINTEMUTE, Sacramento, CA, U.S.A.

Production Editor: Eileen Maass, Tarrytown, NY, USA.

Publishing, Subscription, and Advertising Offices: Pergamon Press Inc., 660 White Plains Road, Tarrytown, NY 10591-5153, USA, E-mail: ESUK.USA@ELSEVIER.COM, and Pergamon Press Ltd., Headington Hill Hall, Oxford OX3 0BW, England.

Published bimonthly. Annual Institutional Subscription Rate (1993): £331.00 (US\$530.00). Sterling prices are definitive. US dollar prices are quoted for convenience only, and are subject to exchange rate fluctuation. Members of the International Association for Accident and Traffic Medicine and of the International Research Committee on Biokinetics of Impacts may receive a concessional subscription rate which is available on request from Pergamon Press. Prices include postage and insurance and are subject to change without notice.

660 White Plains Road Tarrytown, NY 10591-5153 PERGAMON PRESS

Headington Hill Hall Oxford OX3 0BW, England

VOLUME 25, 1993

LIST OF CONTENTS

NUMBER 1

Editorial

Information for readers Frank A. Haight	1
Papers	
The potential of community diagnosis as a tool in planning an intervention programme aimed at preventing injuries	
Gunilla Bjärås	3
Guidelines for the development of safety-related standards for consumer products Willem van Weperen	11
Fatal accidents of older drivers Liisa E. Hakamies-Blomqvist	19
Mechanism of injury from air bag deployment loads Ian V. Lau, John D. Horsch, David C. Viano, and Dennis V. Andrzejak	29
Elderly drivers in Germany—fitness and driving behavior Bernhard Schlag	47
Some contagion models of speeding Terry Connolly and Lars Åberg	57
Safety restraint usage in fatal motor vehicle crashes William E. Cooper and Philip Salzberg	67
Male/female driver characteristics and accident risk: Some new evidence Fred L. Mannering	77
Brief Communications and Research Notes	
A new method for making interstate comparisons of highway fatality rates Bei-Hung Chang and John D. Graham	85
Are accidents Poisson distributed? A statistical test Alan Nicholson and Yiik-Diew Wong	91
The specific accident factor of older employees Simo Salminen	99
Velocity change and fatality risk in a crash: A rule of thumb	103

Recent Publications Mary L. Chipman	105
News, Queries, & Comment	111
Forthcoming Papers	I
NUMBER 2	
Papers	
Stress-related psychophysiological reactions of truck drivers in relation to anxiety, defense, and situational factors	
Uwe Hentschel, Catrien C. J. H. Bijleveld, Manfred Kiessling, and Arn Hosemann	115
The call for help after an injury road accident Harold Brodsky	123
The duration of speed reductions attributable to radar detectors	
Nancy Teed, Adrian K. Lund, and Richard Knoblauch	131
Harmful events in crashes John G. Viner	139
Restrained occupants on the nonstruck side in lateral collisions G. M. Mackay, J. Hill, S. Parkin, and J. A. R. Munns	147
Needle covers reduce needlestick injury Graham D. Wright and Julie-Anne Farrer	153
Fuzzy dice, dream cars, and indecent gestures: Correlates of driver behavior? David Hemenway and Sara J. Solnick	161
Single-vehicle crashes and alcohol: A retrospective study of passenger car fatalities in northern Sweden	
Mats Öström and Anders Eriksson	171
Elderly in the traffic environment: Analysis of fatal crashes in northern Sweden Harmeet Sjögren, Ulf Björnstig, Anders Eriksson, Elisabet Sonntag-Öström, and Mats Öström	177
The Effectiveness of seat belt legislation in reducing various driver-involved injury rates in California	
Peter D. Loeb	189
Life-threatening and disabling injuries in car-to-car side impacts—implications for development of protective systems	
Yngve Håland, Per Lövsund, and Åke Nygren	199
The role of exposure in comparisons of crash risk among different drivers and driving environments	
Mary L. Chipman, Carolyn G. MacGregor, Alison M. Smiley, and Martin Lee-Gosselin	207
Mass ratio and relative driver fatality risk in two-vehicle crashes Leonard Evans and Michael C. Frick	213

Vo	lume	25	Cont	ents

VII

355

News, Queries & Comment	225
Forthcoming Papers	I
NUMBER 3	
Papers	
Epidemiological aspects of fatal and severe injury urban freeway crashes Jess F. Kraus, Craig L. Anderson, Shakeh Arzemanian, Michael Salatka, Parichehr Hemyari, and Guowen Sun	229
Development of a collision typology for evaluation of collision avoidance strategies Dawn L. Massie, Kenneth L. Campbell, and Daniel F. Blower	241
The effect of cellular phone use upon driver attention A. James McKnight and A. Scott McKnight	259
Retrospective evaluation of alternative vision screening criteria for older and younger drivers Lawrence E. Decina and Loren Staplin	267
Modelling of safety measure effects and risk compensation Geoffrey Underwood, C. Jiang, and C. I. Howarth	277
Drinking and driving: Intentions, attitudes, and social norms of Swedish male drivers Lars Åberg	289
Parallel risks of automobile collisions and thefts: A potential means of separating driver and vehicle factors	
Simon Field and Ronald V. Clarke	297
Accident rates for heavy truck-tractors in Michigan Daniel Blower, Kenneth L. Campbell, and Paul E. Green	307
Misuse mode and effects analysis—an approach to predict and quantify misuse of child restraint	
systems Waldemar Czernakowski and Manfred Müller	323
All-terrain vehicle injury risks and the effects of regulation Gregory B. Rodgers	335
The association of helmet use with the outcome of motorcycle crash injury when controlling for crash/injury severity	2.47
Robert Rutledge and Jane Stutts	347
Forthcoming Papers	I
NUMBER 4	
Papers	

A comparison of alcohol-related driving behavior of white and nonwhite North Carolina drivers Carol Lederhaus Popkin and Forrest M. Council

Development of a work behavior taxonomy for the safety function in industry David M. DeJoy	365
David M. Desoy	303
Subjective probability of accident and apprehension in relation to self-other bias, age, and reported behavior	
Andrew Guppy	375
The effects on accidents of compulsory use of daytime running lights for cars in Norway Rune Elvik	383
Typical accidents encountered by assembly workers: Six scenarios for safety planning identified using multivariate methods	
L. Laflamme, T. Backström, and M. Döös	399
Alcohol and drug use among motor vehicle collision victims admitted to a regional trauma unit: Demographic, injury, and crash characteristics	
Gina Stoduto, Evelyn Vingilis, Bhushan M. Kapur, Wen-Jenn Sheu, Barry A. McLellan, and Carolyn B. Liban	41
Does the use of child safety seats increase as a result of loan schemes?	
Kent S. Lindqvist	42
Self-bias in older drivers' judgments of accident likelihood	
Carol A. Holland	43
Work-related road fatalities in Australia, 1982–1984	
James E. Harrison, John A. Mandryk, and Michael S. Frommer	443
Brief Communications and Research Notes	
Application of an injury surveillance system to injuries at an industrial facility Clifford S. Mitchell, Marianne Cloeren, and Brian S. Schwartz	45
	43.
The effect of laser speed-measuring devices on speed limit law enforcement in Charleston, South Carolina	
Nancy Teed and Adrian K. Lund	45
A temporal analysis of rain-related crash risk	
Jean Andrey and Sam Yagar	46.
Exposure corrected risk estimates for childhood product related injuries	
Yvonn D. Senturia, Helen J. Binns, Katherine Kaufer Christoffel, and Robert R. Tanz	47:
Incidence of alcohol and drugs in fatally injured our drivers in Norway	
Incidence of alcohol and drugs in fatally injured car drivers in Norway Hallvard Gjerde, Kari-Mette Beylich, and Jørg Mørland	47
Road accident trends in Nigeria Adeolu J. Oluwasanmi	48.
Bibliographic Section	
Recent Publications	
Mary L. Chipman	48
Forthcoming Papers	

NUMBER 5

Papers

Models for predicting accidents at junctions where pedestrians and cyclists are involved. How	
well do they fit? Ulf Brüde and Jörgen Larsson	499
Nonsanction seat belt law enforcement: A modern day tale of two cities	
William W. Hunter, J. Richard Stewart, Jane C. Stutts, and Lauren M. Marchetti	511
Cost savings associated with increased safety belt use in Iowa, 1987–1988 David E. Nelson, Timothy D. Peterson, Terence L. Chorba, Owen J. Devine, and	
Jeffrey J. Sacks	521
Exposure for different license categories through a phone survey: Validity and feasibility studies	
Pierre Joly, Marie-France Joly, Denise Desjardins, Stéphane Messier, Urs Maag, Parviz Ghadirian, Claire Laberge-Nadeau	529
Risk compensation and the Illinois seat belt use law	
Steven M. Rock	537
Observed and self-reported seat belt wearing as related to prior traffic accidents and convictions William W. Hunter, J. Richard Stewart, Jane C. Stutts, and Eric A. Rodgman	545
Measuring car drivers' skills—an economist's view Finn Jørgensen	555
The special deterrent effects of a jail sanction on first-time drunk drivers: A quasi-experimental study	5/1
Susan E. Martin, Sampson Annan, and Brian Forst	561
Quantified road safety targets: A useful tool for policy making? Rune Elvik	569
Inpatient costs of injury due to motor vehicle traffic crashes in New Zealand	
John D. Langley, David Phillips, and Stephen W. Marshall	585
Costs and functional consequences of U.S. roadway crashes	
Ted R. Miller	593
Effects of a traffic club on road safety knowledge and self-reported behaviour of young children and their parents	
Robert West, Pam Sammons, and Anne West	609
Brief Communications and Research Notes	
The effect of daytime running lights on crashes between two vehicles in Saskatchewan: A study of a government fleet	
Gordon A. Sparks, Russell D. Neudorf, Anne E. Smith, Kenneth R. Wapman, and Paul L. Zador	619
raur L. Laudi	017
The effects of mobile roadside speedometers on traffic speeds Steven M. Casey and Adrian K. Lund	627
Steven W. Casey and Adrian K. Lund	021

Arrest and conviction of injured intoxicated drivers in eastern Pennsylvania David J. Barillo	635
The effect of city curfew ordinances on teenage motor vehicle fatalities David F. Preusser, Paul L. Zador, and Allan F. Williams	641
Forthcoming Papers	I
NUMBER 6	
Papers	
Road safety rhetoric versus road safety politics Karin Køltzow	647
The construction of a road injury database Anna M. Ferrante, Diana L. Rosman, and Matthew W. Knuiman	659
Tiredness and visual reaction time among nighttime cab drivers: A roadside survey M. Thyge Corfitsen	667
Development of a new injury cost scale F. Zeidler, B. Pletschen, D. Scheunert, B. Mattern, B. Alt, T. Miksch, W. Eichendorf, and S. Reiss	675
Modeling vehicle accidents and highway geometric design relationships Shaw-Pin Miaou and Harry Lum	689
Alcohol use, driving records, and crash culpability among injured motorcycle drivers Carl A. Soderstrom, Patricia C. Dischinger, Shiu Man Ho, and Margaret T. Soderstrom	711
Field investigations of the performance of air bag deployments in frontal collisions Donald F. Huelke and Jamie L. Moore	717
A review of cervical fractures and fracture-dislocations without head impacts sustained by restrained occupants	
Donald F. Huelke, G. Murray Mackay, Andrew Morris, and Maureen Bradford	731
Demographic and socioeconomic correlates of safety belt use David Shinar	745
Brief Communications and Research Notes	
Seat belt use and accident involvement: A comparison of driving behavior before and after a seat belt law J. Richard Stewart	757
The expected loss of life quality from traffic injuries requiring hospitalisation	131
Jagadish C. Guria	765
Falls from moving motor vehicles in New Zealand Sean M. Buckley, John D. Langley, and David J. Chalmers	773
Prevalence of alcohol-impaired driving: An international comparison H. Laurence Ross	777

Bibliographic Section

781
791
I
Ш
XIII

